

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**LISTING OF CLAIMS:**

Claim 1 (Previously Presented) Method for assessing the stability of an electric power transmission network, where said network comprises a plurality of substations, buses and lines, and a system protection center, comprising:

- a) measuring phasor data for voltages and currents at a plurality of locations of the network,
- b) transmitting said phasor data to said system protection center,
- c) transmitting information regarding the state of switches of at least one substation to the system protection center, and
- d) the system protection center determining at least one stability margin value of the transmission network from said phasor data and said information regarding the state of switches.

Claim 2 (Previously Presented) The method claimed in claim 1, comprising:

- a) the system protection center determining one or more control commands,
- b) the system protection center transmitting said control commands to the at least one substation, and
- c) the substation executing said control command.

Claim 3 (Previously Presented) The method claimed in claim 1, comprising:

- a) the system protection center determining network state information,
- b) the system protection center transmitting said network state information to an energy management system, and
- c) the energy management system controlling power generation and power flow within the network according to the network state information.

Claim 4 (Currently Amended) The method claimed in claim 1, ~~characterised in that~~ wherein the phasor data is measured at least every 100 milliseconds.

Claim 5 (Currently Amended) The method claimed in claim 1, ~~characterised in that~~ wherein the phasor data is associated with a time stamp that has a temporal resolution smaller than one millisecond.

Claim 6 (Currently Amended) The method claimed in claim 1, ~~characterised in that~~ wherein the measurement of phasor data is synchronised by timing information from the global positioning system.

Claim 7 (Currently Amended) A system protection center for assessing the stability of an electric power transmission network ~~comprises network, comprising:~~ a data concentrator unit for storing phasor data for voltages and currents measured at a plurality of locations of the network from a plurality of phasor measurement units that are distributed over the power transmission network and transmitted to the system protection center, and for storing information regarding the state of switches of at least one substation and transmitted to the system protection center ~~substation data from a plurality of substation automation systems and a system protection unit for generating at least one stability margin value of the transmission network from the phasor data and the information regarding the state of the switches.~~

Claim 8 (Previously Presented) The system protection center as claimed in claim 7, comprising an automated control unit for generating control commands for a substation automation system from the at least one stability margin value and from data provided by the data concentrator unit.

Claim 9 (Previously Presented) The system protection center as claimed in claim 7, comprising means for transmitting network state information to an energy management system of the transmission network.